



U.S. Department of Commerce
Economics and Statistics Administration
BUREAU OF THE CENSUS

Monthly Wholesale Trade

Sales and Inventories

January 1999

BW/99-1

Issued March 1999

MONTHLY WHOLESALE TRADE: SALES AND INVENTORIES JANUARY 1999

Intention to Revise Wholesale Estimates: Monthly wholesale data will be revised based on the results of the 1997 Annual Trade Survey. Unadjusted sales, inventories, and inventories/sales ratios will be revised for January 1993 through February 1999, while corresponding adjusted data will be revised for January 1990 through February 1999. Revised data are scheduled for release the week of May 3.

Sales. January 1999 sales of merchant wholesalers, after adjustment for seasonal variations and trading-day differences but not for price changes, were \$215.3 billion, down 1.0 percent (+/- 0.7%) from the revised December level but were 2.1 percent (+/-1.3%) above the January 1998 level. The December preliminary estimate was revised upward \$0.01 billion. Among durable goods, sales of metals and minerals, except petroleum, increased 2.8 percent from last month, while professional and commercial equipment and supplies fell 2.3 percent. January sales of nondurable goods decreased 2.0 percent (+/-0.9%) from last month but were 2.4 percent (+/-1.3%) above January 1998. Compared to last month, sales of farm-product raw materials declined 10.1 percent and drugs, drug proprietaries and druggists' sundries fell 2.7 percent, while petroleum and petroleum products increased 2.4 percent.

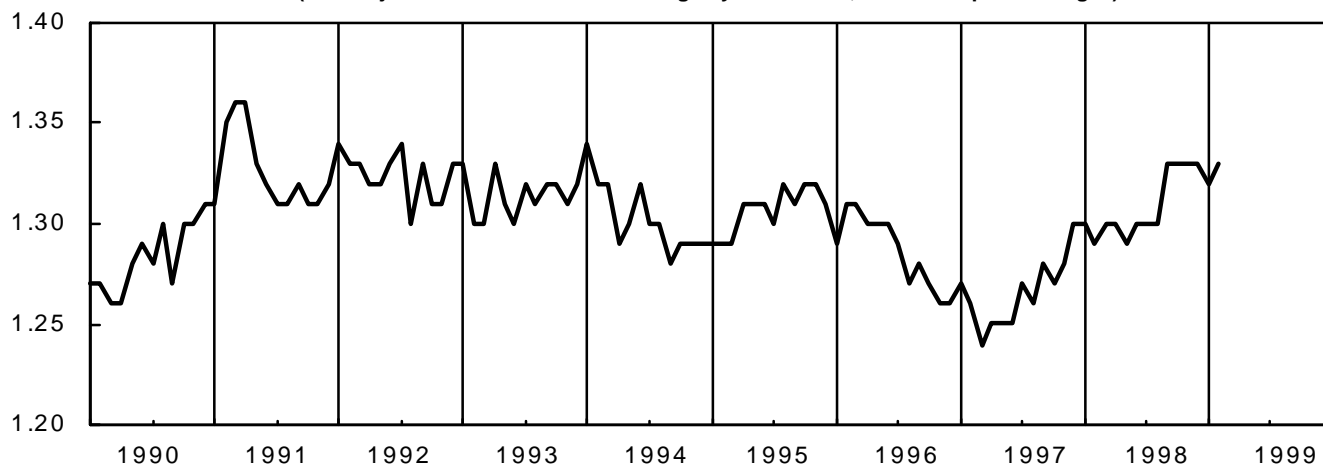
Inventories. Total inventories of merchant wholesalers, after adjustment for seasonal variation but not for price changes, were \$286.3 billion at the end of January, down 0.2 percent (+/-0.5%) from the revised December level but were

5.1 percent (+/-1.3%) above January 1998. The December preliminary estimate was revised downward \$0.3 billion or 0.1 percent. Among durable goods, inventories of motor vehicles and automotive equipment decreased 2.0 percent from last month, while lumber and other construction materials increased 1.6 percent. End-of-month inventories of nondurable goods decreased 0.9 percent (+/-0.8%) from last month but were 5.2 percent (+/-2.6%) above January 1998. Compared to last month, inventories of paper and paper products decreased 1.6 percent, while chemicals and allied products grew 1.1 percent.

Inventories/Sales Ratio. The January inventories/sales ratio for merchant wholesalers, based on seasonally adjusted data, was 1.33. The January 1998 ratio was 1.29.

Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling variability. A discussion of the reliability of the data and general survey methodology appears in BW/97-RV Current Business Reports.

Monthly Inventories/Sales Ratios of Merchant Wholesalers: 1990 to 1999
(Data adjusted for seasonal and trading-day differences, but not for price changes)



Monthly Wholesale Trade for February is scheduled to be released April 6, 1999 at 10:00 a.m.

Address inquiries concerning this report to Service Sector Statistics Division, Bureau of the Census, Washington, DC 20233, or call Ronald Pienckoski, (301) 457-2779 or 457-2764. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

This report is available on day of issue through the Department of Commerce's online Economic Bulletin Board (202-482-1986). The data are also available on the internet - <http://www.census.gov/svsd/www/mwts.html>.

Table 1. Estimated Monthly Sales, Inventories, and Inventories/Sales Ratios of Merchant Wholesalers: 1999 and 1998

[In millions of dollars]

SIC ¹ code	Kind of business	Sales						Inventories						Inventories/Sales		
		Monthly			Percent change			Monthly			Percent change			ratios		
		Jan. 1999 (p)	Dec. 1998 (r)	Jan. 1998 (r)	Jan./ Dec.	Dec./ Nov.	Jan. 99 Jan. 98	Jan. 1999 (p)	Dec. 1998 (r)	Jan. 1998 (r)	Jan./ Dec.	Dec./ Nov.	Jan. 99 Jan. 98	Jan. 1999 (p)	Dec. 1998 (r)	Jan. 1998 (r)
Adjusted ²																
	U.S. Total	215,287	217,403	210,954	-1.0	1.2	2.1	286,262	286,962	272,344	-0.2	0.4	5.1	1.33	1.32	1.29
50	Durable	113,920	113,945	111,921	0.0	1.4	1.8	187,698	187,541	178,614	0.1	0.6	5.1	1.65	1.65	1.60
501	Automotive	19,524	19,590	18,185	-0.3	-0.4	7.4	28,919	29,504	29,189	-2.0	3.6	-0.9	1.48	1.51	1.61
502	Furniture	3,334	3,334	3,521	0.0	-2.1	-5.3	5,606	5,633	5,533	-0.5	0.2	1.3	1.68	1.69	1.57
503	Lumber	7,923	7,990	7,559	-0.8	1.3	4.8	7,609	7,487	7,857	1.6	-1.3	-3.2	0.96	0.94	1.04
504	Prof. equip.	21,070	21,559	20,732	-2.3	5.1	1.6	24,210	24,414	26,367	-0.8	-2.9	-8.2	1.15	1.13	1.27
505	Metals	8,607	8,374	8,926	2.8	0.3	-3.6	14,691	14,746	14,025	-0.4	-1.2	4.7	1.71	1.76	1.57
506	Electrical	17,431	17,290	16,817	0.8	0.5	3.7	27,709	27,753	25,572	-0.2	0.7	8.4	1.59	1.61	1.52
507	Hardware	6,742	6,711	6,680	0.5	0.8	0.9	13,674	13,601	12,692	0.5	0.6	7.7	2.03	2.03	1.90
508	Machinery	18,157	18,437	18,401	-1.5	0.4	-1.3	48,293	47,665	41,639	1.3	1.9	16.0	2.66	2.59	2.26
509	Other Durable	11,132	10,660	11,100	4.4	3.4	0.3	16,987	16,738	15,740	1.5	-0.5	7.9	1.53	1.57	1.42
51	Nondurable	101,367	103,458	99,033	-2.0	0.9	2.4	98,564	99,421	93,730	-0.9	0.2	5.2	0.97	0.96	0.95
511	Paper	8,035	7,989	7,341	0.6	1.0	9.5	9,188	9,334	8,677	-1.6	1.0	5.9	1.14	1.17	1.18
512	Drugs	11895	12,231	10,510	-2.7	6.0	13.2	15,742	15,654	13,693	0.6	1.2	15.0	1.32	1.28	1.30
513	Apparel	7,036	6,861	7,181	2.6	0.3	-2.0	11799	12,171	12,222	-3.1	-0.6	-3.5	1.68	1.77	1.70
514	Groceries	28,561	28,918	27,482	-1.2	-1.0	3.9	16,101	16,121	15,915	-0.1	-1.0	1.2	0.56	0.56	0.58
515	Farm-products	8,205	9,130	9,997	-10.1	2.7	-17.9	12,153	12,427	11,516	-2.2	-1.9	5.5	1.48	1.36	1.15
516	Chemicals	4,487	4,539	4,780	-1.1	-0.4	-6.1	5,227	5,168	4,957	1.1	0.6	5.4	1.16	1.14	1.04
517	Petroleum	11582	11,311	11,991	2.4	-5.4	-3.4	4,100	4,035	4,654	1.6	-3.7	-11.9	0.35	0.36	0.39
518	Alcohol	5,135	5,018	4,595	2.3	1.6	11.8	5,576	5,478	5,000	1.8	-2.1	11.5	1.09	1.09	1.09
519	Other Nondur.	16,431	17,461	15,156	-5.9	4.6	8.4	18,678	19,033	17,096	-1.9	3.1	9.3	1.14	1.09	1.13
Not Adjusted														Sales to date		
														1999	1998	
	U.S. Total	195,414	221,375	197,512	-11.7	6.5	-1.1	291,561	287,683	277,486	1.3	-0.1	5.1	195,414	197,512	
50	Durable	100,920	115,283	102,010	-12.5	6.3	-1.1	187,170	184,613	178,252	1.4	0.0	5.0	100,920	102,010	
501	Automotive	16,966	20,295	16,330	-16.4	7.8	3.9	29,353	28,589	29,627	2.7	-0.1	-0.9	16,966	16,330	
502	Furniture	2,897	3,401	3,151	-14.8	-4.5	-8.1	5,494	5,498	5,422	-0.1	-1.5	1.3	2,897	3,151	
503	Lumber	6,505	7,103	6,365	-8.4	-3.2	2.2	7,434	7,217	7,692	3.0	-1.8	-3.4	6,505	6,365	
504	Prof. equip.	19,174	23,348	19,467	-17.9	21.7	-1.5	24,428	24,390	26,631	0.2	-3.8	-8.3	19,174	19,467	
505	Metals	8,185	7,922	8,658	3.3	1.2	-5.5	14,823	14,893	14,165	-0.5	2.7	4.6	8,185	8,658	
506	Electrical	15,531	17,117	15,287	-9.3	1.1	1.6	27,598	27,115	25,470	1.8	0.0	8.4	15,531	15,287	
507	Hardware	5,926	6,322	5,985	-6.3	-2.8	-1.0	13,442	13,370	12,476	0.5	0.7	7.7	5,926	5,985	
508	Machinery	16,196	18,806	17,021	-13.9	9.2	-4.8	47,713	47,188	41,139	1.1	2.3	16.0	16,196	17,021	
509	Other Durable	9,540	10,969	9,746	-13.0	-0.3	-2.1	16,885	16,353	15,630	3.3	-2.0	8.0	9,540	9,746	
51	Nondurable	94,494	106,092	95,502	-10.9	6.7	-1.1	104,391	103,070	99,234	1.3	-0.2	5.2	94,494	95,502	
511	Paper	7,874	8,093	7,341	-2.7	7.6	7.3	9,363	9,577	8,851	-2.2	1.5	5.8	7,874	7,341	
512	Drugs	11,931	12,892	10,825	-7.5	14.0	10.2	16,875	15,967	14,679	5.7	3.0	15.0	11,931	10,825	
513	Apparel	6,438	5,660	6,779	13.7	-10.2	-5.0	12,283	12,256	12,711	0.2	3.5	-3.4	6,438	6,779	
514	Groceries	26,676	29,843	26,465	-10.6	4.2	0.8	16,085	16,218	15,915	-0.8	-3.8	1.1	26,676	26,465	
515	Farm-products	8,558	10,536	10,777	-18.8	13.5	-20.6	15,459	15,347	14,706	0.7	-2.5	5.1	8,558	10,777	
516	Chemicals	4,186	4,258	4,594	-1.7	-0.4	-8.9	5,222	5,163	4,947	1.1	1.0	5.6	4,186	4,594	
517	Petroleum	11,513	11,865	12,147	-3.0	-1.1	-5.2	4,178	4,233	4,719	-1.3	-1.7	-11.5	11,513	12,147	
518	Alcohol	3,779	5,886	3,570	-35.8	17.5	5.9	5,202	5,029	4,670	3.4	-16.6	11.4	3,779	3,570	
519	Other Nondur.	13,539	17,059	13,004	-20.6	13.2	4.1	19,724	19,280	18,036	2.3	4.8	9.4	13,539	13,004	

p Preliminary estimate. r Revised.

1 For a full description of the SIC Codes shown above see the "1987 Standard Industrial Classification Manual" or the Current Business Reports "Annual Benchmark Report for Wholesale Trade" publication.

2 Data adjusted for seasonal variations and, in the case of sales, also for trading-day differences. See Table 3 for seasonal adjustment factors used

Table 2. Coefficients of Variation and Standard Error for Sales and Inventories

SIC code	Kind of business	Coefficients of variation for level (x 100)				Standard error for trend				Coefficients of variation for level (x 100)		Standard error for trend
		Preliminary estimates		Final estimates		Ratio of two consecutive months		Year to year estimates		Cumulative sales estimates		Current year cumulative to previous year
		Sales	Inv	Sales	Inv	Sales	Inv	Sales	Inv	Current year	Previous year	
		Median	Median	Median	Median	Median	Median	Median	Median			
	U.S. Total	1.0	1.3	1.0	1.3	0.4	0.2	0.7	1.0	1.1	1.1	0.8
50	Durable	1.9	2.2	1.9	2.2	0.6	0.3	1.0	1.2	2.0	2.4	0.9
501	Automotive	4.2	5.1	4.2	5.2	1.0	0.8	2.0	2.0	3.9	5.3	2.1
502	Furniture	6.5	7.7	6.6	7.7	2.1	0.8	3.4	2.5	6.8	6.4	2.1
503	Lumber	5.0	5.6	5.1	5.7	1.2	0.7	2.0	2.3	5.6	6.0	1.6
504	Prof. equip.	5.2	6.3	4.9	6.1	1.3	0.6	3.2	2.8	6.2	5.8	3.3
505	Metals	4.6	9.3	4.6	9.2	1.2	0.8	1.5	3.1	5.0	4.7	1.5
506	Electrical	5.9	6.4	5.9	6.3	1.5	0.6	2.0	2.4	7.5	7.1	2.0
507	Hardware	5.2	5.9	5.3	5.8	1.1	0.6	1.5	1.9	4.7	6.1	2.2
508	Machinery	6.5	6.2	6.3	6.2	1.7	0.6	2.8	2.1	6.2	5.9	2.4
509	Other Durable	5.8	8.0	5.8	7.9	1.7	0.9	2.7	2.2	7.0	5.9	3.4
51	Nondurable	1.9	2.2	1.9	2.2	0.6	0.5	1.0	1.3	1.8	1.5	0.8
511	Paper	4.9	5.1	4.8	5.0	1.1	0.6	2.5	2.5	4.8	3.9	2.3
512	Drugs	6.4	4.8	6.3	4.8	0.9	0.7	2.5	1.6	7.2	6.3	3.6
513	Apparel	5.3	7.7	5.1	7.6	2.0	1.1	3.0	2.6	5.5	6.0	3.7
514	Groceries	3.0	5.4	3.0	5.5	0.7	0.6	1.1	1.2	2.8	2.5	0.9
515	Farm-products	6.1	8.1	6.0	8.1	2.0	1.7	2.7	4.0	5.5	5.2	2.2
516	Chemicals	5.7	6.0	5.8	6.0	1.4	0.6	2.0	1.9	5.3	6.2	1.4
517	Petroleum	6.1	16.0	5.9	15.6	0.9	1.0	1.9	1.7	7.0	7.0	1.3
518	Alcohol	6.4	8.7	6.4	8.7	1.5	1.3	1.6	16.9	6.4	6.4	2.4
519	Other Nondur.	6.4	6.5	6.3	6.6	2.0	1.1	3.9	4.1	6.6	6.2	4.0

Note: The median measures of variability are based on the most recent 12 months of data.

Sample Design and Reliability of Data

There are two types of errors possible in an estimate based on a sample survey: sampling and nonsampling.

Sampling errors occur because observations are made on a sample, not on the entire population, and different samples could have led to different estimates. Standard errors and coefficients of variation, as calculated for this report, are measures of sampling variation. The margin of sampling error, as used on page 1, gives a range about the estimate which is a 90% confidence interval. If, for example, the trend estimate is up 1.2% and the standard error is 0.9%, then the margin of sampling error is $\pm 1.65 \times 0.9\%$ or $\pm 1.5\%$, and the 90% confidence interval is -0.3% to +2.7%. If the interval contains 0, it cannot be stated with certainty whether there was an increase or decrease. For monthly level, the coefficient of variation (CV) is given. The resulting confidence interval is the estimated value $\pm 1.65 \times CV \times$ (the estimated value).

Nonsampling errors are usually attributed to many possible sources: (1) coverage error - failure to accurately represent all population units in the sample,

(2) inability to obtain information about all sample cases, (3) response errors, possibly due to definitional difficulties or misreporting, (4) mistakes in recording or coding the data obtained, and (5) other errors of collection or processing, or in imputing for missing or inconsistent data. Coverage error has an effect on the accuracy of estimates for this survey to the extent that the administrative records system, which forms the basis of our survey universe frame, does not contain all legal businesses. A major source of nonsampling error in the published estimates is due to the need to impute data for nonrespondents and for late and inconsistent reports. For all kinds of businesses combined, imputed data amount to about 26 percent of the total monthly wholesale sales estimates and 28 percent of the total monthly wholesale inventories estimates.

Nonsampling errors also occur in complete censuses. Although no direct measures of these errors have been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data to minimize their influence.

Official Business

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Table 3. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers

SIC code	Kind of Business	Sales						Inventories					
		1999		1998			1998	1999		1998			1998
		Feb.	Jan.r	Dec.r	Nov.	Oct.	Jan.r	Feb.	Jan.r	Dec.r	Nov.	Oct.	Jan.r
	U.S. Total¹	0.915	0.908	1.016	0.968	1.061	0.937	1.014	1.019	1.004	1.008	1.006	1.019
50	Durable	0.904	0.885	1.006	0.967	1.069	0.910	1.003	0.997	0.984	0.990	0.996	0.997
501	Automotive	0.908	0.869	1.036	0.957	1.036	0.898	1.044	1.015	0.969	1.005	1.002	1.015
502	Furniture	0.882	0.869	1.020	1.046	1.089	0.895	0.975	0.980	0.976	0.993	1.000	0.980
503	Lumber	0.842	0.821	0.889	0.931	1.088	0.842	1.004	0.977	0.964	0.969	0.960	0.979
504	Prof. equip.	0.909	0.910	1.083	0.935	1.048	0.939	0.987	1.009	0.999	1.009	1.005	1.010
505	Metals	0.942	0.951	0.946	0.938	1.036	0.970	0.999	1.009	1.010	0.971	0.976	1.010
506	Electrical	0.907	0.891	0.990	0.985	1.095	0.909	0.996	0.996	0.977	0.984	0.983	0.996
507	Hardware	0.862	0.879	0.942	0.977	1.103	0.896	0.999	0.983	0.983	0.982	0.988	0.983
508	Machinery	0.925	0.892	1.020	0.938	1.035	0.925	0.998	0.988	0.990	0.986	0.999	0.988
509	Other Durable	0.882	0.857	1.029	1.068	1.154	0.878	0.981	0.994	0.977	0.992	1.039	0.993
51	Nondurable	0.926	0.934	1.026	0.970	1.046	0.964	1.034	1.058	1.039	1.040	1.025	1.058
511	Paper	0.944	0.980	1.013	0.951	1.039	1.000	0.998	1.019	1.026	1.021	1.007	1.020
512	Drugs	0.930	1.003	1.054	0.980	1.043	1.030	1.017	1.072	1.020	1.003	1.010	1.072
513	Apparel	1.028	0.915	0.825	0.921	1.138	0.944	1.008	1.041	1.007	0.968	0.985	1.040
514	Groceries	0.909	0.934	1.032	0.981	1.031	0.963	0.968	0.999	1.006	1.036	1.053	1.000
515	Farm-products	0.965	1.043	1.154	1.044	1.074	1.078	1.211	1.272	1.235	1.243	1.141	1.277
516	Chemicals	0.945	0.933	0.938	0.938	1.025	0.961	1.010	0.999	0.999	0.995	0.977	0.998
517	Petroleum	0.945	0.994	1.049	1.004	1.030	1.013	0.978	1.019	1.049	1.028	1.037	1.014
518	Alcohol	0.811	0.736	1.173	1.014	1.048	0.777	0.954	0.933	0.918	1.078	1.091	0.934
519	Other Nondur.	0.890	0.824	0.977	0.902	0.979	0.858	1.068	1.056	1.013	0.997	0.966	1.055

r Revised

1 Adjusted sales and inventories data shown in table 1 are obtained by dividing the unadjusted data by the adjustment factors shown above for the corresponding group. Adjusted data for the totals are obtained by adding the durable and nondurable goods. Seasonal factors shown for the totals will provide an approximation of the adjusted estimates, but may show small differences from the published data.

Note: The seasonal factors shown have been computed based on monthly estimates through the current month preliminary estimates.

